

**ANTIMICROBIAL FORMED PAPER**

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**Applicant:** TOYOBO CO LTD  
**Classification:**  
**- international:** D21H13/24; A01N25/34; A01N57/14; D01F6/92; D21H21/36  
**- european:**  
**Application number:** JP19990056263 19990303  
**Priority number(s):**

**Abstract of JP2000248488**

**PROBLEM TO BE SOLVED:** To obtain an inexpensive antimicrobial formed paper excellent in antimicrobial properties and durability by adding a specific phosphorous ester compound to a polyester resin, spinning the obtained polyester resin to provide a polyester-based antimicrobial staple fiber and subjecting the obtained staple fiber to papermaking.

**SOLUTION:** This antimicrobial formed paper is obtained by mixing 0.005-10 wt.% one or more kinds of phosphorous ester compounds of the formula [R1 is a 4-12C (cyclo)alkyl or an arylalkyl; R2 is H, a 1-12C (cyclo)alkyl or an arylalkyl; R3 is H, a 1-12C (cyclo)alkyl, an arylalkyl or the like; R4 and R5 are each a 1-8C alkyl or a hydroxy-substituted 1-4C alkyl or the like] with a polyester resin, melt-spinning the obtained mixture to provide a polyester-based antimicrobial staple fiber having 0.2-6, preferably 1-3 de size and 2-100, preferably 5-20 mm length, and subjecting the obtained staple fiber to papermaking.

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**15. Antibacterial polyester paper making**

**CAS SECTION-** 143

**CAS SUBSECTION-** 007

**CAS** 133-16 133-224477 133:224477 **NDN-** 213-0409-2810-9

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**INTERNATIONAL PATENT CLASS-** D21H0132400; A01N0253400; A01N0571400;  
D01F0069200; D21H0213600

**SUBFILE CODE-** MAC

**LANGUAGE-** Japan

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**NO-ABSTRACT**

**IDENTIFIER(S)-** antibacterial PET paper substitute; phosphite antibacterial agent polyester paper substitute

**CAS REGISTRY/EC NUMBER(S)-** 25038-59-9 **HEADING PARENT-** Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl)

**CAS REGISTRY/EC NUMBER(S)-** 26741-53-7 **HEADING PARENT-** 2,4,8,10-Tetraoxa-3,9-diphosphaspiro[5.5]undecane --3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-

**CAS REGISTRY/EC NUMBER(S)-** 80693-00-1 **HEADING PARENT-** 2,4,8,10-Tetraoxa-3,9-diphosphaspiro[5.5]undecane --3,9-bis[2,6-bis(1,1-dimethylethyl)-4-methylphenoxy]-